

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Michael DEMITZ et al.

Confirmation No. 8843

Group Art Unit: 1611

Serial No. : 10/511,122

Examiner: Yu, Gina C

I.A. Filed : October 12, 2004

For : HAIR CARE AGENTS CONTAINING PREGELATINIZED, CROSS-
LINKED STARCH DERIVATIVES

REPLY BRIEF UNDER 37 C.F.R. § 41.41(a)(1)

Commissioner for Patents
U.S. Patent and Trademark Office
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Randolph Building
401 Dulany Street
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Sir:

This Reply Brief is in response to the Examiner's Answer mailed February 23, 2009, the period for reply extending until April 23, 2009.

In the Examiner's Answer all rejections set forth in the Final Office Action mailed May 15, 2008 and in the Advisory Action mailed August 25, 2008 are maintained.

Appellants note that the Examiner's Answer does not sufficiently address several of Appellants' arguments as to why the rejections are without merit, and misrepresents some of the facts. These deficiencies have prompted the present Reply Brief.

Appellants also note that this Reply Brief is being filed under 37 C.F.R. § 41.41(a)(1) and is directed to the arguments presented in the Examiner's Answer, and therefore must be entered unless the final rejection is withdrawn in response to the instant Reply Brief.

In order to avoid repetition, the following response to the Examiner's arguments in the Examiner's Answer will be limited to issues which are important enough to warrant a further

comment in Appellants' opinion. Accordingly, Appellants' silence with respect to any allegations set forth in the Examiner's Answer which are not specifically addressed below should by no means be construed as Appellants' admission that these allegations are of any merit.

REPLY

1. Regarding the allegations at page 7 of the Examiner's Answer, Appellants have not disputed and do not dispute that MULLER (U.S. Patent No. 6,248,338) discloses hair care compositions which contain the pregelatinized, crosslinked starch derivatives disclosed therein. However, the fact remains that hair care compositions are only one of many types of products in which the pregelatinized, crosslinked starch derivatives disclosed by MULLER can be employed. As pointed out in the Appeal Brief, even the Examples of MULLER describe not only hair rinses and shampoos but also foam bath compositions, O/W cosmetic creams, alcohol-containing lotions with a deodorant action, alcohol containing creams with a light protection action, O/W body lotions, shaving foams, W/O body creams, an emulsifier-free O/W body lotion, a thickened hair bleaching system and even products which have nothing at all to do with skin or hair, i.e., dishwashing compositions and a dental cream.

In contrast, PEFFLY (U.S. Patent No. 5,997,886) is directed specifically to (relatively low VOC) hair styling compositions which provide good style retention without unacceptable stickiness or stiffness (see, e.g., abstract of PEFFLY). Appellants are still unable to see why despite these significant differences between the subject matter of MULLER and that of PEFFLY one of ordinary skill in the art would be motivated to

look in PEFFLY for guidance as to how hair care and cleansing compositions according to MULLER can be improved or at least modified.

Appellants note that the Examiner alleges that according to col. 18, lines 4-14 it is "well known to combine hair conditioning agents with hair styling polymers to make hair care products". The full passage of PEFFLY relied on by the Examiner in this regard, i.e., col. 17, line 59 to col. 18, line 14 states (emphasis added):

The present compositions can contain a wide variety of other optional ingredients that are suitable for application to human hair, including among them any of the types of ingredients known in the art for use in hair care compositions, especially hair setting compositions like hair spray compositions, mousses, gels and tonics. Preferred compositions of the present invention are mousses and gels. Generally, such other adjuvants collectively comprise from about 0.05% to about 5% by weight and preferably from about 0.1% to about 3%, by weight of the compositions. Such conventional optional adjuvants are well known to those skilled in the art and include, but are not limited to, plasticizers, surfactants (which may be anionic, cationic, amphoteric or nonionic), neutralizing agents, propellants, hair conditioning agents (e.g., silicone fluids, fatty esters, fatty alcohols, long chain hydrocarbons, isobutene, cationic surfactants, etc.), emollients, lubricants and penetrants such as various lanolin compounds, preservatives, dyes, tints, bleaches, reducing agents and other colorants, sunscreens, vitamins, proteins, thickening agents (e.g., polymeric thickeners, such as xanthan gum) physiologically active compounds for treating the hair or skin (e.g., anti-dandruff actives, hair growth actives), and perfume.

Appellants point out that none of the specific examples of hair conditioning agents mentioned in PEFFLY, i.e., silicone fluids, fatty esters, fatty alcohols, long chain hydrocarbons, isobutene and cationic surfactants, bears any structural (or other) resemblance whatsoever to the pregelatinized crosslinked starch derivatives taught by MULLER.

The Examiner further alleges that in col. 21, line 28 to col. 22, line 24, particularly in col. 22, line 19 PEFFLY "specifically mentions that cationic starch derivatives can be added as a hair conditioning polymer". In this regard, it is pointed out

that it is not seen that the pregelatinized crosslinked starch derivatives of MULLER are cationic polymers. On the contrary, MULLER even appears to indicate that at least the preferred pregelatinized crosslinked starch derivatives taught therein are anionic. See, e.g., col. 2, lines 53-55 of MULLER. ("The anionic character of the crosslinking sites assists the emulsion-stabilizing action of the starch to be used according to the invention".)

It further is noted that the present rejection is over MULLER in view of PEFFLY and not *vice versa*. In other words, the question here is if one of ordinary skill in the art would have an apparent reason to add a hair styling agent according to PEFFLY to the hair care compositions of MULLER, not whether one of ordinary skill in the art would be motivated to add a pregelatinized crosslinked starch derivative according to MULLER to the hair styling compositions of PEFFLY.

2. Regarding the allegations at page 8, first paragraph of the Examiner's Answer, Appellants submit that with respect to the question what would have motivated one of ordinary skill in the art to pick and choose specific types of hair styling polymers from the hundreds of different types of polymers disclosed in PEFFLY for incorporation into hair care compositions according to MULLER (if one were to assume, *arguendo*, that there is a any motivation to add hair styling polymers to the compositions of MULLER), the present claims are apparently of no relevance.

With respect to Example VII of PEFFLY particularly pointed out by the Examiner in this regard, it is noted that the composition disclosed therein is a gel composition which in addition to a PVP/VA copolymer contains, *inter alia*, polyquaternium-11,

hydroxypropyl guar and a silicone microemulsion. Appellants are unable to see that this composition constitutes motivation for one of ordinary skill in the art to add the PVP/VA copolymer to a hair care composition according to MULLER, i.e., a composition containing a (specific) pregelatinized crosslinked starch derivative.

3. Regarding the comments at page 8, second paragraph and the paragraph bridging pages 8 and 9 of the Examiner's Answer, it appears that the Examiner tries to suggest that MULLER teaches that the pregelatinized crosslinked starch derivatives disclosed therein can be used as hair styling agents as well, wherefore there allegedly would be motivation to combine MULLER and PEFFLY. However, there clearly is a difference between hair styling and hair conditioning. For example, PEFFLY specifically states that hair conditioning agents can be added to the hair styling compositions disclosed therein (see passage of PEFFLY reproduced above). Moreover, col. 8, lines 10-37 of MULLER which includes col. 8, lines 24-33 specifically relied on by the Examiner in this regard states, *inter alia* (emphasis added):

A further preferred embodiment of the invention is a hair dyeing or hair bleaching composition. These compositions are characterized by containing a colorant or an oxidizing agent, respectively. ... Hair dyeing compositions or hair bleaching compositions generally have a high pH. Surprisingly, the starch derivative to be used according to the invention is stable also at the elevated pH of these products. The viscosity build up provided by the starch derivative to be used according to the invention enables the product to remain in place in the hair during use and enables the desired duration of exposure to be achieved. The starch to be used according to the invention can be easily dispersed in the aqueous medium without lumps. Polysaccharide thickening agents commonly used in hair treatment compositions, such as hydroxyethyl cellulose and xanthan gum, are typically difficult to disperse as they form clumps and fish-eyes.

The above passage apparently relates to hair dyeing or hair bleaching compositions and merely discloses that the pregelatinized crosslinked starch derivatives

taught by MULLER can be used in such compositions in order to hold the dyeing or bleaching agents in contact with the hair for the duration of the dyeing or bleaching operation. Clearly, this has nothing to do with any hair styling action of these derivatives.

4. Regarding the paragraph bridging pages 11 and 12 of the Examiner's Answer, it is noted that the Examiner alleges that FLICK (Flick, Cosmetic Additives, 1991) indicates the utility of the PVP/VA copolymers which form hard and glossy, water-removable films (disclosed at page 304 of FLICK) in hair care compositions and that FLICK suggests that these polymers have "good compatibility with many modifiers". Appellants respectfully disagree with the Examiner in this regard. What FLICK actually discloses is that these PVP/VA copolymers which are "[f]ilm-formers used in hairsprays, gels, mousses, lotions, hair thickeners, tints and dyes" have "[g]ood compatibility with many modifiers and plasticizers" which "permits further variation of hygroscopicity and film flexibility". Appellants are unable to see how this disclosure is an indication of the utility of these copolymers in hair care compositions and in particular, a suggestion for one of ordinary skill in the art to use these copolymers in hair care compositions according to MULLER.

5. Regarding the comments at page 13 of the Examiner's Answer, it is not clear to Appellants why FLICK allegedly "provides the specific reason why a skilled artisan would have chosen these particular quaternized cellulose [disclosed at page 172 of FLICK] in view of the Muller patent", and neither does the Examiner provide any explanation in this regard.

6. Regarding the combination of MULLER and ROLLAT (US 2003/0147834 A1) Appellants point out again that the situation here is similar to that with respect to the combination of MULLER and PEFPLY. As noted above, hair care compositions are only one of many types of products in which the pregelatinized, crosslinked starch derivatives disclosed by MULLER can be employed. The Examples of MULLER describe not only hair rinses and shampoos but also foam bath compositions, O/W cosmetic creams, alcohol-containing lotions with a deodorant action, alcohol containing creams with a light protection action, O/W body lotions, shaving foams, W/O body creams, an emulsifier-free O/W body lotion, a thickened hair bleaching system and even products which have nothing at all to do with skin or hair, i.e., dishwashing compositions and a dental cream. Accordingly, MULLER can clearly not be characterized as being focused on hair care compositions.

ROLLAT, on the other hand, is directed specifically to reshapable hair styling compositions which comprise at least one (meth)acrylic copolymer. It is apparent that hair care and hair styling are different. There further is no apparent reason at all for one of ordinary skill in the art to incorporate a reshapable hair styling component, i.e., the particular (meth)acrylic copolymer taught by ROLLAT, into a hair care composition and in particular, a hair care composition according to MULLER which contains a specific pregelatinized, crosslinked starch derivative. For this reason alone, MULLER in view of ROLLAT is unable to render obvious the subject matter of any of the rejected claims.

Regarding the allegations in the next-to-last paragraph of page 15 of the Examiner's Answer, Appellants respectfully disagree with the Examiner that the phrase "cationic, anionic, nonionic, and amphoteric (such as zwitterionic) polymers other than

polymers of the invention” in paragraph [0050] of ROLLAT “implies that these polymers are also hair styling polymers”. In particular, the complete paragraph [0050] of ROLLAT states (emphasis added):

The composition according to the invention may further comprise at least one constituent known in the cosmetic arts that does not substantially interfere with the reshaping properties of the at least one (meth)acrylic copolymer. Such constituents may be chosen from, but are not limited to: reducing agents (such as thiols); silanes (such as aminopropyl triethoxy silane); fatty substances; thickeners; plasticizers; anti-foaming agents; hydrating agents; fillers; sunscreens (such as UV filters); active haircare agents; perfumes; preservatives; cationic, anionic, nonionic, and amphoteric (such as zwitterionic) surfactants; cationic, anionic, nonionic, and amphoteric (such as zwitterionic) polymers other than polymers of the invention; polyols; proteins; provitamins; vitamins; dyes; tints; bleaches; and pH adjusting agents. The compositions may also contain a conditioning agent such as, for example, such as silicones, fatty esters, fatty alcohols, long chain hydrocarbons, emollients, lubricants, polymers, surfactants, lanolin compounds, ceramides, proteins, protein hydrolysates, and other protein derivatives. As used herein, the term "conditioning agent" means any agent whose function is to improve the cosmetic properties of the hair, for example, the softness, ease of disentangling, feel, and lack of static electricity. In one embodiment, the at least one conditioning agent is chosen from cationic surfactants, cationic polymers, and silicones.

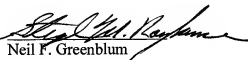
Accordingly, the “cationic, anionic, nonionic, and amphoteric (such as zwitterionic) polymers other than polymers of the invention” mentioned in paragraph [0050] of ROLLAT are expressly required to be polymers which “[do] not substantially interfere with the reshaping properties of the at least one (meth)acrylic copolymer”. If these polymers were (or were intended to be) hair styling polymers themselves there would apparently be no reason for a corresponding statement.

CONCLUSION

The request to reverse the rejection of claims 18-35 and 37-41 and to return the application to the Examining Group for prompt allowance is respectfully maintained.

Although no fee is believed to be required for entry of this Reply Brief, the Patent and Trademark Office is hereby authorized to charge any fee that is deemed to be necessary to Deposit Account No. 19-0089.

Respectfully submitted,
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